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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Yuka Kurita

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EXAMINER

SU, SUSAN SHAN

ART UNIT

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/551,532	Applicant(s) KURITA ET AL.	
	Examiner SUSAN SU	Art Unit 3761	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
4a) Of the above claim(s) 13-15 and 17-21 is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-3, 8-11 and 16 is/are rejected.
- 7) ☒ Claim(s) 4-7 and 12 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>24 November 2008 and 26 May 2009</u> . | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Election/Restrictions

1. Applicant's election of Species I (Claims 1-12 and 16) in the reply filed on 17 April 2009 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)). Claims 13-15 and 17-21 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected Species II & III, there being no allowable generic or linking claim.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

4. Claims 1-2, 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kimura et al. (US 6,293,935, "Kimura") in view of Kurata et al. (US 2001/0008964, "Kurata").

With regard to Claims 1-2 & 10-11, Kimura teaches a body fluid absorbent article (1), comprising:

an absorbent (30) that is provided in a body fluid absorbent portion (e.g. the central portion of the article), and that includes a body fluid absorption and holding function and a shrinkage function (Col. 3 lines 35-44) when contacted with a body fluid.

Kimura also teaches

a liquid permeable surface layer provided on a side facing a body skin; and a leak-proof layer provided on a side apart from the body skin, wherein said body fluid absorbent portion is provided between the surface layer and the leak-proof layer.

Kimura does not expressly teach an absorption control layer with a liquid impermeable range that is reduced whenever a body fluid is excreted.

Kurata teaches a layer of water-soluble adhesive (13a, made of polyvinyl alcohol, which is the same material that the Applicant also employs in manufacturing absorption control layer), thus the adhesive forms a liquid impermeable range that can be reduced when it is in contact with body fluid (since some of the adhesive would dissolve).

Therefore the adhesive acts as the claimed absorption control layer. Since the adhesive is dispersed throughout the entire area of the absorbent article ([0030]), the liquid impermeable range includes a body fluid receiving portion defined as a range in which the excreted body fluid is received first within said body fluid absorbent portion.

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Since the entire layer would dissolve upon contact with liquid, it is obvious that the peripheral portions are also dissolved upon contact with body fluid.

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Kimura with Kurata for the purpose of stabilizing the absorbent within the absorbent article.

5. Claims 3, 8, & 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kimura and Kurata as applied to claim 1 above, and further in view of Hamajima et al. (US 5,496,626, "Hamajima"). Kimura and Kurata do not teach a body fluid diffusion layer but Kimura teaches a body fluid storage portion (for example, 33 of Fig. 6, which would necessarily extend substantially the entire length of the absorbent article). Hamajima teaches a body fluid diffusion layer (2A, Col. 10 lines 32-41) and that the diffusion layer covers the liquid impermeable range (because the diffusion layer is described to prevent liquid residue at the topsheet and would therefore need to be at the body fluid receiving portion, which overlaps with the liquid impermeable range). Hamajima also teaches that the body fluid diffusion layer consists of a fiber assembly sheet (Col. 4 lines 8-14) having a Klemm water absorption of 100 millimeter or more in ten minutes (Col. 5 lines 55-59). Although Hamajima does not expressly teach that the body fluid diffusion layer protrudes outside the liquid impermeable range, but varying the amount of water-soluble adhesive (which provides the liquid impermeability) to change the area that it covers requires only routine skills in the art. Therefore one skilled in the art would be able to determine the liquid permeability range as it is necessary for maintaining structural integrity of the article while using less material. It

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would have been obvious to one of ordinary skill in the art at the time of the invention to modify Kimura and Kurata with Hamajima for the purpose of more evenly distributing fluid to the entire absorbent. After the modification, the body fluid storage portion would contact the body fluid diffusion layer (since that is the purpose of the diffusion layer taught by Hamajima).

6. Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kimura and Kurata as applied to claim 1 above, and further in view of Glaug et al. (US 5,399,175, "Glaug"). Kimura and Kurata do not teach a plurality of wall members within the body fluid absorbent portion. Glaug teaches a plurality of wall members (150) within the body fluid absorbent portion at predetermined intervals. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Kimura and Kurata with Glaug for the purpose of preventing side leakage.

Allowable Subject Matter

7. Claims 4-7 & 12 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

With regard to Claim 4, no prior art has been found to teach or suggest a fixed portion and a free portion in the absorbent and the absorption control layer is *reduced from the fixed portion toward the free portion* when body fluid is excreted. Claims 5-7 are dependent on Claim 4 and are therefore also allowable over prior art.

With regard to Claim 12, no prior art has been found to teach or suggest that the absorption control layer is a water soluble film having an absorbent-side surface that is

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not subjected to water repellant treatment and an opposite surface subjected to water repellant treatment. Furthermore, an opposite teaching is found in prior art Champaigne, Jr. (US 3,651,809) which teaches a disposable absorbent article with a water-soluble film wrapped around parts of the absorbent, the film is coated to repel water on the surface that faces the absorbent to prevent leakage.

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Ahr et al. (US 6,432,097) teaches a disposable absorbent article that has a contractile string where upon the contact with liquid the string shrinks and pulls an auxiliary absorbent core to a region where body fluid is discharged onto the surface of the absorbent article. Shaw (US 2,681,032) teaches a visual indicator that reduces from a free end towards a fixed end when wet. Mormon et al. (US 6,423,883) teaches a liquid-activated transport means that would suction liquid from the target zone to a peripheral zone.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to SUSAN SU whose telephone number is (571)270-3848. The examiner can normally be reached on M-F 9:00AM-5:00PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tatyana Zalukaeva can be reached on 571-272-1115. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Susan Su/
Examiner, Art Unit 3761

/Tatyana Zalukaeva/
Supervisory Patent Examiner, Art Unit 3761